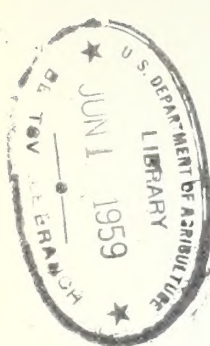


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## UNITED STATES DEPARTMENT OF AGRICULTURE

Agricultural Research Service

LIVESTOCK PRODUCTION UNITS, ANNUAL 1910-55 1/

By

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It is frequently necessary to estimate the feed required to produce a given volume of livestock production (meat, milk, eggs, and so on) at the national level. Livestock-production units can be used for this purpose. They are computed by multiplying the production of each item of livestock by a factor representing the feed required per 100 pounds, and then adding to get the total of all livestock production units. The total production units can be related to the total feed consumed by all livestock for a series of years, thus obtaining a factor that can be used for estimating the feed needed in some future year.

This procedure is similar to that in which feed requirements at the national level are estimated from the number of animal units. 2/ Each device serves as a partial check on the other. As production per animal is increasing over the years, the number of production units is increasing in relation to the number of animal units.

Production units are calculated from Department of Agriculture estimates on annual production of milk and eggs and annual live-weight production of hogs, cattle, sheep, chickens, broilers, and turkeys. The numbers of horses and mules on farms on January 1 and goats clipped in the year are used to complete the livestock picture. As the production units are to be related to national feed supplies and consumption, both of which are reported for the year beginning October 1 rather than the calendar year, production units also were calculated for the year beginning October 1. To do this, the production for each of the principal kinds of livestock was computed for the year beginning October 1 (table 1). Monthly production data for milk and eggs are reported by the Department, but only calendar-year data are reported for live-weight production of hogs, cattle, sheep, and poultry. The calendar-year

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1/ This report supersedes and simplifies a report by the author published in 1948, Units of Livestock Production: A Measure of Grain Consumption at the National Level, U. S. Bur. Agr. Econ. F. M. 63, 19 pp., mimeographed. The present report does not show production units for each quarter of the year, but only for the year beginning October 1. It gives 2 sets of production units, however, one for grain and one for all feed. A new method of computing cattle-production units is employed.

2/ See Animal Units of Livestock Fed Annually, 1909 to 1956, by R. D. Jennings; U. S. Dept. Agr. Statis. Bul. 215, 12 pp., illus., 1957.



Table 1.- Data for computing annual livestock-production units, 1910-55

| Year<br>beginning<br>October 1 | Live-weight production   |                            |                   |   |                       |                       |                   |                   |                   |                   | Other<br>production |                   | Horses and<br>mules Jan. 1 |               | Goats<br>clipped<br>1/ |               |
|--------------------------------|--------------------------|----------------------------|-------------------|---|-----------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|---------------------|-------------------|----------------------------|---------------|------------------------|---------------|
|                                | Cattle                   |                            |                   |   |                       | Poultry 1/            |                   |                   |                   |                   | Million<br>pounds   | Million<br>pounds | Million<br>pounds          | 1,000<br>head | 1,000<br>head          | 1,000<br>head |
|                                | Hogs<br>fatted<br>cattle | Grain-<br>fatted<br>cattle | Other<br>cattle   | All<br>cattle<br>except<br>milk<br>cows | Sheep<br>and<br>lambs | Farm<br>chick-<br>ens | Broil-<br>ers     | Turkeys           | Milk              | Eggs              |                     |                   |                            |               |                        |               |
|                                | Million<br>pounds        | Million<br>pounds          | Million<br>pounds | Million<br>pounds                       | Million<br>pounds     | Million<br>pounds     | Million<br>pounds | Million<br>pounds | Million<br>pounds | Million<br>pounds | Million<br>pounds   | Million<br>pounds | 1,000<br>head              | 1,000<br>head | 1,000<br>head          | 1,000<br>head |
| 1910-----                      | 12,400                   | ---                        | ---               | 12,800                                  | 1,134                 | 2,240                 | ---               | ---               | 65,700            | 29,100            | 20,301              | 4,546             | ---                        | ---           | ---                    | ---           |
| 1911-----                      | 12,100                   | ---                        | ---               | 12,000                                  | 1,238                 | 2,220                 | ---               | ---               | 66,400            | 28,400            | 20,569              | 4,708             | ---                        | ---           | ---                    | ---           |
| 1912-----                      | 12,200                   | ---                        | ---               | 12,200                                  | 1,209                 | 2,230                 | ---               | ---               | 67,500            | 28,100            | 20,846              | 4,845             | ---                        | ---           | ---                    | ---           |
| 1913-----                      | 12,500                   | ---                        | ---               | 13,100                                  | 1,250                 | 2,300                 | ---               | ---               | 69,200            | 27,900            | 21,247              | 4,931             | ---                        | ---           | ---                    | ---           |
| 1914-----                      | 13,600                   | ---                        | ---               | 14,400                                  | 1,258                 | 2,230                 | ---               | ---               | 70,700            | 29,700            | 21,562              | 4,931             | ---                        | ---           | ---                    | ---           |
| 1915-----                      | 13,700                   | ---                        | ---               | 15,400                                  | 1,152                 | 2,170                 | ---               | ---               | 72,000            | 28,900            | 21,694              | 4,840             | ---                        | ---           | ---                    | ---           |
| 1916-----                      | 13,100                   | ---                        | ---               | 16,400                                  | 1,124                 | 2,200                 | ---               | ---               | 73,200            | 27,800            | 22,003              | 4,656             | ---                        | ---           | ---                    | ---           |
| 1917-----                      | 14,300                   | ---                        | ---               | 17,000                                  | 1,210                 | 2,850                 | ---               | ---               | 73,800            | 28,000            | 22,370              | 4,353             | ---                        | ---           | ---                    | ---           |
| 1918-----                      | 14,200                   | ---                        | ---               | 16,700                                  | 1,167                 | 2,280                 | ---               | ---               | 73,800            | 30,200            | 22,576              | 3,914             | ---                        | ---           | ---                    | ---           |
| 1919-----                      | 13,600                   | ---                        | ---               | 16,200                                  | 980                   | 2,230                 | ---               | ---               | 75,400            | 29,800            | 22,386              | 3,356             | ---                        | ---           | ---                    | ---           |
| 1920-----                      | 14,000                   | ---                        | ---               | 15,600                                  | 1,091                 | 2,400                 | ---               | ---               | 77,600            | 30,700            | 22,348              | 2,789             | ---                        | ---           | ---                    | ---           |
| 1921-----                      | 15,900                   | ---                        | ---               | 15,500                                  | 1,096                 | 2,530                 | ---               | ---               | 80,600            | 32,700            | 22,271              | 2,317             | ---                        | ---           | ---                    | ---           |
| 1922-----                      | 16,900                   | ---                        | ---               | 15,000                                  | 1,210                 | 2,640                 | ---               | ---               | 83,300            | 34,800            | 22,050              | 1,968             | ---                        | ---           | ---                    | ---           |
| 1923-----                      | 15,800                   | ---                        | ---               | 14,400                                  | 1,407                 | 2,516                 | ---               | ---               | 88,200            | 34,600            | 21,578              | 1,707             | ---                        | ---           | ---                    | ---           |
| 1924-----                      | 14,600                   | ---                        | ---               | 13,125                                  | 1,496                 | 2,580                 | ---               | ---               | 90,400            | 34,900            | 21,038              | 1,531             | ---                        | ---           | ---                    | ---           |
| 1925-----                      | 14,600                   | ---                        | ---               | 12,800                                  | 1,584                 | 2,728                 | ---               | ---               | 92,700            | 36,984            | 20,490              | 1,496             | ---                        | ---           | ---                    | ---           |
| 1926-----                      | 15,400                   | ---                        | ---               | 12,250                                  | 1,650                 | 2,850                 | ---               | ---               | 94,710            | 38,475            | 19,765              | 1,427             | ---                        | ---           | ---                    | ---           |
| 1927-----                      | 16,500                   | ---                        | ---               | 12,100                                  | 1,746                 | 2,660                 | ---               | ---               | 95,675            | 38,339            | 19,120              | 1,328             | ---                        | ---           | ---                    | ---           |
| 1928-----                      | 16,000                   | ---                        | ---               | 12,250                                  | 1,810                 | 2,854                 | ---               | ---               | 98,201            | 38,148            | 18,514              | 1,230             | ---                        | ---           | ---                    | ---           |
| 1929-----                      | 15,300                   | 1,416                      | 11,109            | 12,525                                  | 1,929                 | 2,875                 | ---               | ---               | 99,463            | 38,818            | 17,981              | 1,143             | ---                        | ---           | ---                    | ---           |
| 1930-----                      | 15,600                   | 1,376                      | 12,149            | 13,525                                  | 2,030                 | 2,694                 | ---               | ---               | 102,097           | 38,209            | 17,375              | 1,093             | ---                        | ---           | ---                    | ---           |
| 1931-----                      | 16,500                   | 1,350                      | 11,825            | 13,175                                  | 1,885                 | 2,870                 | ---               | ---               | 103,789           | 37,101            | 16,822              | 990               | ---                        | ---           | ---                    | ---           |
| 1932-----                      | 16,800                   | 1,445                      | 12,855            | 14,300                                  | 1,852                 | 2,850                 | ---               | ---               | 104,657           | 35,516            | 16,404              | 933               | ---                        | ---           | ---                    | ---           |
| 1933-----                      | 15,000                   | 1,396                      | 13,654            | 15,050                                  | 1,898                 | 2,447                 | 97                | ---               | 102,458           | 34,450            | 15,984              | 1,013             | ---                        | ---           | ---                    | ---           |
| 1934-----                      | 10,600                   | 1,070                      | 13,530            | 14,600                                  | 1,854                 | 2,566                 | 123               | ---               | 101,468           | 33,190            | 15,473              | 1,210             | ---                        | ---           | ---                    | ---           |

|           |          |       |        |        |       |       |       |       |         |        |        |       |       |
|-----------|----------|-------|--------|--------|-------|-------|-------|-------|---------|--------|--------|-------|-------|
| 1935----- | : 12,000 | 1,591 | 13,184 | 14,775 | 1,848 | 2,788 | 152   | 405   | 101,505 | 34,343 | 14,839 | 1,387 | 3,715 |
| 1936----- | : 12,800 | 1,371 | 12,779 | 14,150 | 1,912 | 2,404 | 196   | 376   | 102,711 | 37,202 | 14,330 | 1,472 | 3,774 |
| 1937----- | : 15,100 | 1,705 | 12,195 | 13,900 | 2,011 | 2,539 | 240   | 395   | 104,781 | 36,970 | 13,690 | 1,555 | 3,918 |
| 1938----- | : 15,900 | 1,808 | 12,842 | 14,650 | 2,031 | 2,716 | 306   | 494   | 106,764 | 38,441 | 13,273 | 1,519 | 4,068 |
| 1939----- | : 17,600 | 2,044 | 13,156 | 15,200 | 2,083 | 2,599 | 414   | 502   | 109,081 | 39,494 | 13,000 | 1,478 | 4,297 |
| 1940----- | : 16,900 | 2,134 | 13,916 | 16,050 | 2,213 | 3,055 | 560   | 512   | 113,888 | 40,951 | 12,651 | 1,453 | 4,542 |
| 1941----- | : 19,400 | 2,256 | 15,244 | 17,500 | 2,298 | 3,545 | 674   | 522   | 118,565 | 47,498 | 12,346 | 1,309 | 4,322 |
| 1942----- | : 24,100 | 2,225 | 16,275 | 18,500 | 2,159 | 4,204 | 833   | 509   | 117,754 | 53,880 | 12,117 | 1,114 | 4,276 |
| 1943----- | : 23,600 | 2,062 | 17,388 | 19,450 | 1,980 | 3,578 | 790   | 584   | 116,238 | 57,850 | 11,668 | 945   | 4,109 |
| 1944----- | : 18,800 | 2,265 | 18,110 | 20,375 | 1,918 | 3,827 | 1,107 | 740   | 120,141 | 56,276 | 11,116 | 834   | 4,291 |
| 1945----- | : 18,900 | 2,387 | 17,413 | 19,800 | 1,800 | 3,247 | 884   | 714   | 117,661 | 54,468 | 10,434 | 675   | 3,939 |
| 1946----- | : 18,300 | 2,451 | 17,599 | 20,050 | 1,615 | 3,164 | 936   | 611   | 117,785 | 55,085 | 9,578  | 551   | 3,672 |
| 1947----- | : 18,400 | 2,379 | 16,921 | 19,300 | 1,429 | 2,767 | 1,127 | 574   | 112,593 | 54,281 | 8,800  | 479   | 3,164 |
| 1948----- | : 18,600 | 2,638 | 16,587 | 19,225 | 1,304 | 3,102 | 1,570 | 769   | 115,025 | 54,803 | 8,074  | 424   | 2,558 |
| 1949----- | : 19,800 | 2,766 | 18,109 | 20,875 | 1,322 | 2,790 | 1,944 | 817   | 116,694 | 58,721 | 7,415  | 366   | 2,530 |
| 1950----- | : 21,100 | 2,906 | 19,994 | 22,900 | 1,363 | 2,804 | 2,415 | 950   | 117,052 | 57,721 | 6,732  | 304   | 2,472 |
| 1951----- | : 20,600 | 3,345 | 20,880 | 24,225 | 1,416 | 2,525 | 2,624 | 1,049 | 113,507 | 57,809 | 5,887  | 263   | 2,287 |
| 1952----- | : 18,600 | 3,536 | 22,914 | 26,450 | 1,522 | 2,576 | 2,907 | 1,008 | 118,987 | 57,436 | 5,166  | 237   | 2,337 |
| 1953----- | : 17,400 | 3,756 | 24,019 | 27,775 | 1,589 | 2,430 | 3,236 | 1,161 | 122,018 | 58,385 | 4,572  | 219   | 2,618 |
| 1954----- | : 19,400 | 4,321 | 23,904 | 28,225 | 1,614 | 2,171 | 3,350 | 1,090 | 122,316 | 59,602 | 4,101  | 208   | 2,983 |
| 1955----- | : 19,500 | 4,398 | 23,677 | 28,075 | 1,577 | 2,182 | 4,275 | 1,275 | 125,421 | 61,000 | 3,728  | 200   | 3,164 |

1/ Production for the 12 months following October 1.

2/ On January 1 following October 1.



production of broilers and turkeys was used without adjustment. The number of chickens raised in the calendar year multiplied by the average weight of all chickens sold was used for production of farm chickens. (Chickens raised are principally for replacements in laying flocks.)

The calendar-year production data for cattle and sheep were adjusted to the October 1 year basis by adding 25 percent of the production in one year and 75 percent of the production in the succeeding year after adjusting the calendar-year cattle production for changes in numbers of milk cows. The estimated gain in grain-fattened cattle (included in production of all cattle) was computed by multiplying the number of cattle on feed January 1 by factors, from 1.3 to 1.5 before 1945 and 1.7 in recent years, to give the total number of cattle put on feed in the year. This number was then multiplied by the gain per head, which was assumed to increase gradually from 325 pounds per head in 1930 to 440 pounds in recent years. The difference between the gain in grain-fattened cattle and live-weight production of all cattle is the gain in "other" cattle. A different factor is used for each of these classes of cattle.

The procedure for estimating the live-weight production of hogs is to estimate the production for the calendar year by quarters of the year, as shown in table 2 for 1956. The number of hogs on farms January 1, the pig crop, death loss, and weight of barrows and gilts at eight markets are used to estimate the annual production. The production from each group of hogs is distributed to the different quarters of the year as shown below:

Estimated Percentage of Annual Production Made in Each Quarter

|  | <u>January-<br/>March</u> | <u>April-<br/>June</u> | <u>July-<br/>September</u> | <u>October-<br/>December</u> |
|--|---------------------------|------------------------|----------------------------|------------------------------|
|  | <u>Percent</u>            | <u>Percent</u>         | <u>Percent</u>             | <u>Percent</u>               |
| Hogs on farms Jan. 1:                  |                           |                        |                            |                              |
| Spring pigs -----                      | 100                       | ---                    | ---                        | ---                          |
| Fall pigs -----                        | 55                        | 35                     | 10                         | ---                          |
| Sows and gilts-----                    | 45                        | 35                     | 15                         | 5                            |
| Current pig crop, on<br>farms Dec. 31: |                           |                        |                            |                              |
| Spring pigs -----                      | ---                       | 10                     | 35                         | 55                           |
| Fall pigs -----                        | ---                       | 5                      | 20                         | 75                           |
| Gilts -----                            | ---                       | 10                     | 35                         | 55                           |
| Other hogs sold -----                  | 5                         | 20                     | 35                         | 40                           |

Table 2. - Estimating the live-weight production of hogs by quarters, 1956

| Item   | Number:<br>of<br>hogs | Weight per head           |                          |                   |                      | Total live weight produced |                        |                     |                              |                                |  |
|--|-----------------------|---------------------------|--------------------------|-------------------|----------------------|----------------------------|------------------------|---------------------|------------------------------|--------------------------------|--|
|  |                       | Begin-<br>ning of<br>year | When<br>slaugh-<br>tered | End<br>of<br>year | Gain<br>in<br>weight | Calen-<br>dar<br>year      | January<br>to<br>March | April<br>to<br>June | July<br>to<br>Septem-<br>ber | October<br>to<br>Decem-<br>ber |  |
|  | Million<br>head       | Pounds                    | Pounds                   | Pounds            | Pounds               | Million<br>pounds          | Million<br>pounds      | Million<br>pounds   | Million<br>pounds            | Million<br>pounds              |  |
| Hogs on farms Jan. 1:                                  |                       |                           |                          |                   |                      |                            |                        |                     |                              |                                |  |
| Spring pigs-----                                       | 12.5                  | 200                       | 1/227                    | ---               | ---                  | 337                        | 337                    | ---                 | ---                          | ---                            |  |
| Fall pigs-----   | 34.1                  | 65                        | 2/218                    | ---               | ---                  | 5,217                      | 2,869                  | 1,826               | 522                          | ---                            |  |
| Sows-----  | 2.9                   | ---                       | ---                      | ---               | 125                  | 362                        | 163                    | 127                 | 54                           | 18                             |  |
| Gilts 3/-----  | 5.7                   | ---                       | ---                      | ---               | 125                  | 712                        | 320                    | 249                 | 107                          | 36                             |  |
| Total-----   | 55.2                  |                           |                          |                   |                      |                            |                        |                     |                              |                                |  |
| Hogs on farms Dec. 31<br>from current pig crop:        |                       |                           |                          |                   |                      |                            |                        |                     |                              |                                |  |
| Spring pigs-----                                       | 10.5                  | ---                       | ---                      | 200               | ---                  | 2,100                      | ---                    | 210                 | 735                          | 1,155                          |  |
| Fall pigs-----   | 33.2                  | ---                       | ---                      | 65                | ---                  | 2,158                      | ---                    | 108                 | 432                          | 1,618                          |  |
| Gilts 3/-----  | 5.6                   | ---                       | ---                      | 200               | ---                  | 1,120                      | ---                    | 112                 | 392                          | 616                            |  |
| Deaths in year-----                                    | 9.5                   | ---                       | ---                      | ---               | ---                  | ---                        | ---                    | ---                 | ---                          | ---                            |  |
| Hogs sold or unaccounted<br>for -----                  | 30.9                  | ---                       | 4/222                    | ---               | ---                  | 6,860                      | 343                    | 1,372               | 2,401                        | 2,744                          |  |
| Pigs saved -----                                       | 89.7                  |                           |                          |                   |                      |                            |                        |                     |                              |                                |  |
| Live weight produced as calculated -----               |                       |                           |                          |                   |                      | 18,866                     | 4,032                  | 4,004               | 4,643                        | 6,187                          |  |
| Live weight produced as reported by AMS -----          |                       |                           |                          |                   |                      | 18,832                     | ---                    | ---                 | ---                          | ---                            |  |
| Live weight produced by quarters adjusted to AMS ----- |                       |                           |                          |                   |                      | 18,832                     | 4,025                  | 3,997               | 4,635                        | 6,175                          |  |

1/ Average weight of barrows and gilts at 8 markets, January through March.

2/ Average weight of barrows and gilts at 8 markets, April through September.

3/ 2/3 of sows and gilts were assumed to be gilts.

4/ Average weight of barrows and gilts at 8 markets, October through December.



The 100 percent shown in the January through March quarter for spring pigs on hand on January 1 means that all of the gain in weight on these pigs in the calendar year beginning January 1 was made in the first quarter of the year. They were marketed during that quarter. Similarly, for fall pigs on hand on January 1, 55 percent of the gain in weight in the calendar year beginning January 1 was made in the first quarter, 35 percent in the second quarter and 10 percent in the third quarter.

In the same way estimates are made of the gains made in each quarter by the spring and fall pigs farrowed during the year. These pigs show up for the first time in the December 31 year-end inventory.

It was assumed that on January 1 and December 31 spring pigs weighed 200 pounds and fall pigs 65 pounds, and that both sows and gilts made a gain of 125 pounds before being sold or inventoried at the end of the year. It was further assumed that two-thirds of the sows and gilts on January 1 were gilts (table 2).

These percentages have been used since 1952. From 1938 to 1952, a different set of percentages was used, which tended to concentrate more of the production in the October-December quarter. Before 1938, a still different set of percentages was used and concentration in the October-December quarter was even greater. A similar change appears over the years in the disappearance of concentrate feeds by quarters, as reported by the Agricultural Marketing Service, especially in the feed available for hogs after a reasonable allowance has been made for each of the other kinds of livestock. The live-weight production of hogs is computed by taking the calendar-year production, subtracting the production in the October to December quarter of that year, and adding the production in the October to December quarter of the preceding year. These are the production figures for hogs given in table 1.

The numbers of horses and mules 2 years old and over and of colts on farms on January 1 within the feeding year were used to compute production units for these livestock, as no data are available to show the amount of work done. The number of goats clipped during the year was used to include this kind of livestock.

The factors used in computing production units are given in table 3. Two factors are given, one for concentrates and another for all feed. The feed fed to the average milk cow from 1940 to 1945 is taken as 1.0. This period was used because it is the same as that used in computing animal units. <sup>3/</sup> The livestock production units from grain and other concentrates and all feed are given in tables 4 and 5.

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<sup>3/</sup> See footnote 2.



Table 3. - Factors for computing livestock-production units

| Item                     | Unit         | Livestock production units - |        |               |        |
|--------------------------|--------------|------------------------------|--------|---------------|--------|
|                          |              | From grain                   |        | From all feed |        |
|                          |              | Concentrates:                | Factor | All feed      | Factor |
|                          |              | fed per                      | :      | consumed      | :      |
|                          |              | unit                         | :      | per unit      | :      |
|                          |              | :                            | :      | :             | :      |
|                          |              | Pounds 1/                    |        | Feed          |        |
|                          |              |                              |        | units 1/      |        |
| On farm Jan. 1:          |              |                              |        |               |        |
| Milk cows <sup>2/</sup>  | Head         | 1,342                        | 1.0    | 4,981         | 1.0    |
| Horses and mules 2 years | do.          | 1,707                        | 1.27   | 5,130         | 1.03   |
| old and over             | do.          | 345                          | .26    | 3,478         | .70    |
| Colts                    |              |                              |        |               |        |
| Goats clipped            | do.          | ---                          | ---    | 765           | .15    |
| Live weight produced:    |              |                              |        |               |        |
| Grain-fattened cattle    | Cwt.         | 567                          | .42    | 914           | .18    |
| Other cattle             | do.          | 33                           | .025   | 732           | .15    |
| Sheep and lambs          | do.          | 113                          | .08    | 1,969         | .39    |
| Hogs                     | do.          | 477                          | .36    | 545           | .11    |
| Chickens raised          | do.          | 519                          | .39    | 568           | .11    |
| Broilers                 | do.          | 316                          | .23    | 362           | .07    |
| Turkeys                  | do.          | 579                          | .43    | 677           | .13    |
| Milk                     | 1,000 pounds | 307                          | .23    | 1,138         | .23    |
| Eggs                     | 1,000 eggs   | 601                          | .45    | 633           | .13    |

1/ The average feed consumption of the years 1940-1945 was taken as the base period except that 1950-1953 was taken for broilers. These are the same periods used in computing animal units in U. S. Dept. Agr. Statis. Bul. 215.

2/ The average milk production per cow on farm January 1 for 1940-1945 was 4,380 pounds.

Table 4. - Livestock-production units from grain and other concentrates, 1910-55

| Year<br>beginning<br>October 1 | Milk           | Grain-<br>fattened<br>cattle | Other<br>cattle<br>1/ | Sheep<br>and<br>lambs | Hogs           | Eggs           | Farm<br>chick-<br>ens<br>raised | Broil-<br>ers  | Turkeys        | Horses<br>and<br>mules         |               |                | Total<br>excluding<br>horses<br>and<br>mules |
|--------------------------------|----------------|------------------------------|-----------------------|-----------------------|----------------|----------------|---------------------------------|----------------|----------------|--------------------------------|---------------|----------------|--|
|                                |                |                              |                       |                       |                |                |                                 |                |                | 2 years:<br>old<br>and<br>over | head          | units          |  |
|                                | 1,000<br>units | 1,000<br>units               | 1,000<br>units        | 1,000<br>units        | 1,000<br>units | 1,000<br>units | 1,000<br>units                  | 1,000<br>units | 1,000<br>units | 1,000<br>head                  | 1,000<br>head | 1,000<br>units | 1,000<br>units                               |
| 1910-----                      | 15,111         | ---                          | 8,320                 | 907                   | 44,640         | 13,095         | 8,736                           | ---            | ---            | 25,782                         | 1,182         | 117,773        | 90,809                                       |
| 1911-----                      | 15,272         | ---                          | 7,800                 | 990                   | 43,560         | 12,780         | 8,658                           | ---            | ---            | 26,123                         | 1,224         | 116,407        | 89,060                                       |
| 1912-----                      | 15,525         | ---                          | 7,930                 | 967                   | 43,920         | 12,645         | 8,697                           | ---            | ---            | 26,474                         | 1,260         | 117,418        | 89,684                                       |
| 1913-----                      | 15,916         | ---                          | 8,515                 | 1,000                 | 45,000         | 12,555         | 8,970                           | ---            | ---            | 26,984                         | 1,282         | 120,222        | 91,956                                       |
| 1914-----                      | 16,261         | ---                          | 9,360                 | 1,006                 | 48,960         | 13,365         | 8,697                           | ---            | ---            | 27,384                         | 1,282         | 126,315        | 97,649                                       |
| 1915-----                      | 16,560         | ---                          | 10,010                | 922                   | 49,320         | 13,005         | 8,463                           | ---            | ---            | 27,551                         | 1,258         | 127,089        | 98,280                                       |
| 1916-----                      | 16,836         | ---                          | 10,660                | 899                   | 47,160         | 12,510         | 8,580                           | ---            | ---            | 27,944                         | 1,211         | 125,800        | 96,645                                       |
| 1917-----                      | 16,974         | ---                          | 11,050                | 968                   | 51,480         | 12,600         | 11,115                          | ---            | ---            | 28,410                         | 1,132         | 133,729        | 104,187                                      |
| 1918-----                      | 16,974         | ---                          | 10,855                | 934                   | 51,120         | 13,590         | 8,892                           | ---            | ---            | 28,672                         | 1,018         | 132,055        | 102,365                                      |
| 1919-----                      | 17,342         | ---                          | 10,530                | 784                   | 48,960         | 13,410         | 8,697                           | ---            | ---            | 28,430                         | 873           | 129,026        | 99,723                                       |
| 1920-----                      | 17,848         | ---                          | 10,140                | 873                   | 50,400         | 13,815         | 9,360                           | ---            | ---            | 28,382                         | 725           | 131,543        | 102,436                                      |
| 1921-----                      | 18,538         | ---                          | 10,075                | 877                   | 57,240         | 14,715         | 9,867                           | ---            | ---            | 28,284                         | 602           | 140,198        | 111,312                                      |
| 1922-----                      | 19,159         | ---                          | 9,750                 | 968                   | 60,840         | 15,660         | 10,296                          | ---            | ---            | 28,004                         | 512           | 145,189        | 116,673                                      |
| 1923-----                      | 20,286         | ---                          | 9,360                 | 1,126                 | 56,880         | 15,570         | 9,812                           | ---            | ---            | 27,404                         | 444           | 140,882        | 113,034                                      |
| 1924-----                      | 20,792         | ---                          | 8,531                 | 1,197                 | 52,560         | 15,705         | 10,062                          | ---            | ---            | 26,718                         | 398           | 135,963        | 108,847                                      |
| 1925-----                      | 21,321         | ---                          | 8,320                 | 1,267                 | 52,560         | 16,643         | 10,639                          | ---            | ---            | 26,022                         | 389           | 137,161        | 110,750                                      |
| 1926-----                      | 21,783         | ---                          | 7,962                 | 1,320                 | 55,440         | 17,314         | 11,115                          | ---            | ---            | 25,102                         | 371           | 140,407        | 114,934                                      |
| 1927-----                      | 22,005         | ---                          | 7,865                 | 1,397                 | 59,400         | 17,253         | 10,374                          | ---            | ---            | 24,282                         | 345           | 142,921        | 118,294                                      |
| 1928-----                      | 22,586         | ---                          | 7,962                 | 1,448                 | 57,600         | 17,167         | 11,131                          | ---            | 1,028          | 23,513                         | 320           | 142,755        | 118,922                                      |
| 1929-----                      | 22,876         | 5,947                        | 2,777                 | 1,543                 | 55,080         | 17,468         | 11,212                          | ---            | 980            | 22,836                         | 297           | 141,016        | 117,883                                      |
| 1930-----                      | 23,482         | 5,779                        | 3,037                 | 1,624                 | 56,160         | 17,194         | 10,507                          | ---            | 1,049          | 22,066                         | 284           | 141,182        | 118,832                                      |
| 1931-----                      | 23,871         | 5,670                        | 2,956                 | 1,508                 | 59,400         | 16,695         | 11,193                          | ---            | 1,303          | 21,364                         | 257           | 144,217        | 122,596                                      |
| 1932-----                      | 24,071         | 6,069                        | 3,214                 | 1,482                 | 60,480         | 15,982         | 11,115                          | ---            | 1,372          | 20,833                         | 243           | 144,861        | 123,785                                      |
| 1933-----                      | 23,565         | 5,863                        | 3,414                 | 1,518                 | 54,000         | 15,502         | 9,543                           | 223            | 1,290          | 20,300                         | 263           | 135,481        | 114,918                                      |
| 1934-----                      | 23,338         | 4,494                        | 3,382                 | 1,483                 | 38,160         | 14,936         | 10,007                          | 283            | 1,281          | 19,651                         | 315           | 117,330        | 97,364                                       |



|           |           |         |        |        |         |         |         |        |        |         |     |          |          |
|-----------|-----------|---------|--------|--------|---------|---------|---------|--------|--------|---------|-----|----------|----------|
| 1935----- | : 23, 346 | 6, 682  | 3, 296 | 1, 478 | 43, 200 | 15, 454 | 10, 873 | 350    | 1, 742 | 18, 846 | 361 | 125, 628 | 106, 421 |
| 1936----- | : 23, 624 | 5, 758  | 3, 195 | 1, 530 | 46, 080 | 16, 741 | 9, 376  | 451    | 1, 617 | 18, 199 | 383 | 126, 954 | 108, 372 |
| 1937----- | : 24, 100 | 7, 161  | 3, 049 | 1, 609 | 54, 360 | 16, 636 | 9, 902  | 552    | 1, 698 | 17, 386 | 404 | 136, 857 | 119, 067 |
| 1938----- | : 24, 556 | 7, 594  | 3, 210 | 1, 625 | 57, 240 | 17, 298 | 10, 600 | 704    | 2, 124 | 16, 857 | 395 | 142, 203 | 124, 951 |
| 1939----- | : 25, 089 | 8, 585  | 3, 289 | 1, 666 | 63, 360 | 17, 772 | 10, 136 | 952    | 2, 159 | 16, 510 | 384 | 149, 902 | 133, 008 |
| 1940----- | : 26, 194 | 8, 963  | 3, 479 | 1, 770 | 60, 840 | 18, 428 | 11, 914 | 1, 288 | 2, 202 | 16, 067 | 378 | 151, 523 | 135, 078 |
| 1941----- | : 27, 270 | 9, 475  | 3, 811 | 1, 838 | 69, 840 | 21, 374 | 13, 826 | 1, 550 | 2, 245 | 15, 679 | 340 | 167, 248 | 151, 229 |
| 1942----- | : 27, 083 | 9, 345  | 4, 069 | 1, 727 | 86, 760 | 24, 246 | 16, 396 | 1, 916 | 2, 189 | 15, 389 | 290 | 189, 410 | 173, 731 |
| 1943----- | : 26, 735 | 8, 660  | 4, 347 | 1, 584 | 84, 960 | 26, 032 | 13, 954 | 1, 817 | 2, 511 | 14, 818 | 246 | 185, 664 | 170, 600 |
| 1944----- | : 27, 632 | 9, 513  | 4, 528 | 1, 534 | 67, 680 | 25, 324 | 14, 925 | 2, 546 | 3, 182 | 14, 117 | 217 | 171, 198 | 156, 864 |
| 1945----- | : 27, 062 | 10, 025 | 4, 396 | 1, 440 | 68, 040 | 24, 511 | 12, 653 | 2, 033 | 3, 070 | 13, 251 | 176 | 166, 667 | 153, 240 |
| 1946----- | : 27, 091 | 10, 294 | 4, 400 | 1, 292 | 65, 880 | 24, 788 | 12, 340 | 2, 153 | 2, 627 | 12, 164 | 143 | 163, 172 | 150, 865 |
| 1947----- | : 25, 896 | 9, 992  | 4, 230 | 1, 143 | 66, 240 | 24, 426 | 10, 791 | 2, 592 | 2, 468 | 11, 176 | 125 | 159, 079 | 147, 778 |
| 1948----- | : 26, 456 | 11, 080 | 4, 147 | 1, 043 | 66, 960 | 24, 661 | 12, 098 | 3, 611 | 3, 307 | 10, 254 | 110 | 163, 727 | 153, 363 |
| 1949----- | : 26, 840 | 11, 617 | 4, 527 | 1, 058 | 71, 280 | 26, 424 | 10, 881 | 4, 471 | 3, 513 | 9, 417  | 95  | 170, 123 | 160, 611 |
| 1950----- | : 26, 922 | 12, 205 | 4, 998 | 1, 090 | 75, 960 | 25, 974 | 10, 936 | 5, 554 | 4, 085 | 8, 550  | 79  | 176, 353 | 167, 724 |
| 1951----- | : 26, 107 | 14, 049 | 5, 220 | 1, 133 | 74, 160 | 26, 014 | 9, 848  | 6, 035 | 4, 511 | 7, 476  | 68  | 174, 621 | 167, 077 |
| 1952----- | : 27, 367 | 14, 851 | 5, 728 | 1, 218 | 66, 960 | 25, 846 | 10, 046 | 6, 686 | 4, 334 | 6, 561  | 62  | 169, 659 | 163, 036 |
| 1953----- | : 28, 064 | 15, 775 | 6, 005 | 1, 271 | 62, 640 | 26, 273 | 9, 477  | 7, 443 | 4, 992 | 5, 806  | 57  | 167, 803 | 161, 940 |
| 1954----- | : 28, 133 | 18, 148 | 5, 976 | 1, 291 | 69, 840 | 26, 821 | 8, 467  | 7, 705 | 4, 687 | 5, 208  | 54  | 176, 330 | 171, 068 |
| 1955----- | : 28, 847 | 18, 472 | 5, 919 | 1, 262 | 70, 200 | 27, 450 | 8, 510  | 9, 832 | 5, 482 | 4, 735  | 52  | 180, 761 | 175, 974 |

1/ Includes grain-fattened cattle 1910 to 1928. The same relation was assumed between live-weight production of all cattle and calves, except milk cows and production units from 1910 to 1928 as existed in 1929-33.

Table 5.- Livestock-production units from all feed, 1910-55

| Year<br>beginning<br>October 1 | Milk<br>cattle | Grain-<br>fattened:<br>cattle | Other<br>cattle | Sheep<br>and<br>lambs | Goats          | Hogs           | Eggs           | Farm<br>chick-<br>ens<br>raised | Broil-<br>ers  | Turkeys:       | Horses<br>and<br>mules         |               |                | Total<br>exclud-<br>ing<br>horses<br>and<br>mules |
|--------------------------------|----------------|-------------------------------|-----------------|-----------------------|----------------|----------------|----------------|---------------------------------|----------------|----------------|--------------------------------|---------------|----------------|---|
|                                |                |                               |                 |                       |                |                |                |                                 |                |                | 2 years:<br>old<br>and<br>over | Colts         | units          |   |
|                                | 1,000<br>units | 1,000<br>units                | 1,000<br>units  | 1,000<br>units        | 1,000<br>units | 1,000<br>units | 1,000<br>units | 1,000<br>units                  | 1,000<br>units | 1,000<br>units | 1,000<br>head                  | 1,000<br>head | 1,000<br>units | 1,000<br>units                                    |
| 1910-----                      | 15,111         | ---                           | 21,120          | 4,423                 | ---            | 13,640         | 3,783          | 2,464                           | ---            | ---            | 20,910                         | 3,182         | 84,633         | 60,541  |
| 1911-----                      | 15,272         | ---                           | 19,800          | 4,828                 | ---            | 13,310         | 3,692          | 2,442                           | ---            | ---            | 21,186                         | 3,296         | 83,826         | 59,344  |
| 1912-----                      | 15,525         | ---                           | 20,130          | 4,715                 | ---            | 13,420         | 3,653          | 2,453                           | ---            | ---            | 21,471                         | 3,392         | 84,759         | 59,896  |
| 1913-----                      | 15,916         | ---                           | 21,615          | 4,875                 | ---            | 13,750         | 3,627          | 2,530                           | ---            | ---            | 21,884                         | 3,452         | 87,649         | 62,313  |
| 1914-----                      | 16,261         | ---                           | 23,760          | 4,906                 | ---            | 14,960         | 3,861          | 2,453                           | ---            | ---            | 22,209                         | 3,452         | 91,862         | 66,201  |
| 1915-----                      | 16,560         | ---                           | 25,410          | 4,493                 | ---            | 15,070         | 3,757          | 2,387                           | ---            | ---            | 22,345                         | 3,388         | 93,410         | 67,677  |
| 1916-----                      | 16,836         | ---                           | 27,060          | 4,384                 | ---            | 14,410         | 3,614          | 2,420                           | ---            | ---            | 22,663                         | 3,259         | 94,646         | 68,724  |
| 1917-----                      | 16,974         | ---                           | 28,050          | 4,719                 | ---            | 15,730         | 3,640          | 3,135                           | ---            | ---            | 23,041                         | 3,047         | 98,336         | 72,248  |
| 1918-----                      | 16,974         | ---                           | 27,555          | 4,551                 | ---            | 15,620         | 3,926          | 2,508                           | ---            | ---            | 23,253                         | 2,740         | 97,127         | 71,134  |
| 1919-----                      | 17,342         | ---                           | 26,730          | 3,822                 | 355            | 14,960         | 3,874          | 2,453                           | ---            | ---            | 23,057                         | 2,349         | 94,942         | 69,536  |
| 1920-----                      | 17,848         | ---                           | 25,740          | 4,255                 | 379            | 15,400         | 3,991          | 2,640                           | ---            | ---            | 23,018                         | 1,952         | 95,223         | 70,253  |
| 1921-----                      | 18,538         | ---                           | 25,575          | 4,274                 | 338            | 17,490         | 4,251          | 2,783                           | ---            | ---            | 22,939                         | 1,622         | 97,810         | 73,249  |
| 1922-----                      | 19,159         | ---                           | 24,750          | 4,719                 | 346            | 18,590         | 4,524          | 2,904                           | ---            | ---            | 22,712                         | 1,378         | 99,082         | 74,992  |
| 1923-----                      | 20,286         | ---                           | 23,760          | 5,487                 | 382            | 17,380         | 4,498          | 2,768                           | ---            | ---            | 22,225                         | 1,195         | 97,981         | 74,561  |
| 1924-----                      | 20,792         | ---                           | 21,656          | 5,834                 | 385            | 16,060         | 4,537          | 2,838                           | ---            | ---            | 21,669                         | 1,072         | 94,843         | 72,102  |
| 1925-----                      | 21,321         | ---                           | 21,120          | 6,178                 | 469            | 16,060         | 4,808          | 3,001                           | ---            | ---            | 21,105                         | 1,047         | 95,109         | 72,957  |
| 1926-----                      | 21,783         | ---                           | 20,212          | 6,435                 | 490            | 16,940         | 5,002          | 3,135                           | ---            | ---            | 20,358                         | 999           | 95,354         | 73,997  |
| 1927-----                      | 22,005         | ---                           | 19,965          | 6,809                 | 557            | 18,150         | 4,984          | 2,926                           | ---            | ---            | 19,694                         | 930           | 96,020         | 75,396  |
| 1928-----                      | 22,586         | ---                           | 20,212          | 7,059                 | 581            | 17,600         | 4,959          | 3,139                           | ---            | ---            | 19,069                         | 861           | 96,377         | 76,447  |
| 1929-----                      | 22,876         | 2,549                         | 16,664          | 7,523                 | 636            | 16,830         | 5,046          | 3,162                           | ---            | ---            | 18,520                         | 800           | 94,902         | 75,582  |
| 1930-----                      | 23,482         | 2,477                         | 18,224          | 7,917                 | 669            | 17,160         | 4,967          | 2,963                           | ---            | ---            | 17,896                         | 765           | 96,837         | 78,176  |
| 1931-----                      | 23,871         | 2,430                         | 17,738          | 7,352                 | 630            | 18,150         | 4,823          | 3,157                           | ---            | ---            | 17,327                         | 693           | 96,565         | 78,545  |
| 1932-----                      | 24,071         | 2,601                         | 19,282          | 7,223                 | 614            | 18,480         | 4,617          | 3,135                           | ---            | ---            | 16,896                         | 653           | 97,987         | 80,438  |
| 1933-----                      | 23,565         | 2,513                         | 20,481          | 7,402                 | 587            | 16,500         | 4,478          | 2,692                           | 68             | 390            | 16,464                         | 709           | 95,849         | 78,676  |
| 1934-----                      | 23,338         | 1,926                         | 20,295          | 7,231                 | 535            | 11,660         | 4,315          | 2,823                           | 86             | 387            | 15,937                         | 847           | 89,380         | 72,596  |



|           |         |        |         |        |     |         |        |        |        |        |         |        |          |          |
|-----------|---------|--------|---------|--------|-----|---------|--------|--------|--------|--------|---------|--------|----------|----------|
| 1935----- | 23, 346 | 2, 864 | 19, 776 | 7, 207 | 557 | 13, 200 | 4, 465 | 3, 067 | 106    | 526    | 15, 284 | 971    | 91, 369  | 75, 114  |
| 1936----- | 23, 624 | 2, 468 | 19, 168 | 7, 457 | 566 | 14, 080 | 4, 836 | 2, 644 | 137    | 489    | 14, 760 | 1, 030 | 91, 259  | 75, 469  |
| 1937----- | 24, 100 | 3, 069 | 18, 292 | 7, 843 | 588 | 16, 610 | 4, 806 | 2, 793 | 168    | 514    | 14, 101 | 1, 088 | 93, 972  | 78, 783  |
| 1938----- | 24, 556 | 3, 254 | 19, 263 | 7, 921 | 610 | 17, 490 | 4, 997 | 2, 990 | 214    | 642    | 13, 671 | 1, 063 | 96, 671  | 81, 937  |
| 1939----- | 25, 089 | 3, 679 | 19, 734 | 8, 124 | 645 | 19, 360 | 5, 134 | 2, 859 | 290    | 653    | 13, 390 | 1, 035 | 99, 992  | 85, 567  |
| 1940----- | 26, 194 | 3, 841 | 20, 874 | 8, 631 | 681 | 18, 590 | 5, 324 | 3, 360 | 392    | 666    | 13, 031 | 1, 017 | 102, 601 | 88, 553  |
| 1941----- | 27, 270 | 4, 061 | 22, 866 | 8, 962 | 648 | 21, 340 | 6, 175 | 3, 900 | 472    | 679    | 12, 716 | 916    | 110, 005 | 96, 373  |
| 1942----- | 27, 083 | 4, 005 | 24, 412 | 8, 420 | 641 | 26, 510 | 7, 004 | 4, 624 | 583    | 662    | 12, 481 | 780    | 117, 205 | 103, 944 |
| 1943----- | 26, 735 | 3, 712 | 26, 082 | 7, 722 | 616 | 25, 960 | 7, 520 | 3, 936 | 553    | 759    | 12, 018 | 662    | 116, 275 | 103, 595 |
| 1944----- | 27, 632 | 4, 077 | 27, 165 | 7, 480 | 644 | 20, 680 | 7, 316 | 4, 210 | 775    | 962    | 11, 449 | 584    | 112, 974 | 100, 941 |
| 1945----- | 27, 062 | 4, 297 | 26, 374 | 7, 020 | 591 | 20, 790 | 7, 081 | 3, 572 | 619    | 928    | 10, 747 | 472    | 109, 553 | 98, 334  |
| 1946----- | 27, 091 | 4, 412 | 26, 398 | 6, 298 | 551 | 20, 130 | 7, 161 | 3, 480 | 655    | 794    | 9, 865  | 386    | 107, 221 | 96, 970  |
| 1947----- | 25, 896 | 4, 282 | 25, 382 | 5, 573 | 475 | 20, 240 | 7, 057 | 3, 044 | 789    | 746    | 9, 064  | 335    | 102, 883 | 93, 484  |
| 1948----- | 26, 456 | 4, 748 | 24, 880 | 5, 086 | 384 | 20, 460 | 7, 124 | 3, 412 | 1, 099 | 1, 000 | 8, 316  | 297    | 103, 262 | 94, 649  |
| 1949----- | 26, 840 | 4, 979 | 27, 164 | 5, 156 | 380 | 21, 780 | 7, 634 | 3, 069 | 1, 361 | 1, 062 | 7, 637  | 256    | 107, 318 | 99, 425  |
| 1950----- | 26, 922 | 5, 231 | 29, 991 | 5, 316 | 371 | 23, 210 | 7, 504 | 3, 084 | 1, 690 | 1, 235 | 6, 934  | 213    | 111, 701 | 104, 554 |
| 1951----- | 26, 107 | 6, 021 | 31, 320 | 5, 522 | 343 | 22, 660 | 7, 515 | 2, 778 | 1, 837 | 1, 364 | 6, 064  | 184    | 111, 715 | 105, 467 |
| 1952----- | 27, 367 | 6, 365 | 34, 371 | 5, 936 | 351 | 20, 460 | 7, 467 | 2, 834 | 2, 035 | 1, 310 | 5, 321  | 166    | 113, 983 | 108, 496 |
| 1953----- | 28, 064 | 6, 761 | 36, 028 | 6, 197 | 393 | 19, 140 | 7, 590 | 2, 673 | 2, 265 | 1, 509 | 4, 709  | 153    | 115, 482 | 110, 620 |
| 1954----- | 28, 133 | 7, 778 | 35, 856 | 6, 295 | 447 | 21, 340 | 7, 748 | 2, 388 | 2, 345 | 1, 417 | 4, 224  | 146    | 118, 117 | 113, 747 |
| 1955----- | 28, 847 | 7, 916 | 35, 516 | 6, 150 | 475 | 21, 450 | 7, 930 | 2, 400 | 2, 992 | 1, 658 | 3, 840  | 140    | 119, 314 | 115, 334 |

Index numbers of livestock-production units, excluding horses and mules, are shown in table 6. The index of livestock-production units from all feed has agreed closely in recent years with the index of livestock production, excluding horses and mules, weighted by value computed for calendar years. <sup>4/</sup> Indexes of animal units fed and feed consumed are also given in table 6. Comparisons of indexes of livestock production units, animal units, and feed consumed are given in figures 1 and 2. Livestock production over 4-1/2 decades has increased a great deal more than number of animal units and somewhat more than total feed consumed. In recent years, the trend is continuing with a greater increase in total feed efficiency. Little change in the quantity of concentrates used to produce a given quantity of livestock product has occurred (table 7). Most of the increase in total feed efficiency has apparently been due to less forage used per unit of production. Although there have been large increases in efficiency of feed use by broilers in recent years, these have had little effect on overall production of livestock products.

The trend in concentrates fed per livestock-production unit has been relatively constant since 1920, except for the 1930's (table 7). All feed consumed per production unit, excluding horses and mules, is given in table 8. It shows a decline from 1920 to 1930, below-average amounts consumed during the depression and droughts of the 1930's, above-average amounts consumed during World War II, and decreases in amounts consumed in recent years. The overall decrease in feed per unit of production in 40 years is about one-half of 1 percent a year. However, pasture was a much larger percentage of all feed per production unit before 1925 than in recent years and accounted for most of the decrease in all feed.

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<sup>4/</sup> Farm Economics Research Division, Agricultural Research Service. Changes in Farm Production and Efficiency. 1956 Summary. U. S. Agr. Res. Serv. ARS 43-55, 45 pp., 1957.



Table 6. - Index numbers of livestock production units, animal units fed and feed consumed, excluding horses and mules, 1910-55

(1947-49=100)

| Year beginning<br>October 1 | Livestock production :        |   | Animal units :                   |  | Feed :                                      |   | All<br>livestock<br>and<br>livestock<br>products <u>3/</u> |
|-----------------------------|-------------------------------|---|----------------------------------|--|---|---|--|
|                             | units :                       |   | fed ^:                           |  | consumed :                                  |   |  |
|                             | From<br>all<br>feed <u>1/</u> | From<br>all concen-<br>trates <u>2/</u> | Grain-<br>consuming<br>livestock | Grain-and-<br>roughage :<br>consuming<br>livestock : | Grain<br>and other :<br>concen-<br>trates : | All<br>feed in-<br>cluding<br>pasture : |  |
| 1910-----                   | 63                            | 59                                      | 74                               | 79   | 63  | 69                                      | 61   |
| 1911-----                   | 62                            | 58                                      | 73                               | 77   | 59  | 71                                      | 61   |
| 1912-----                   | 62                            | 58                                      | 73                               | 77   | 66  | 72                                      | 63   |
| 1913-----                   | 65                            | 60                                      | 75                               | 79   | 59  | 72                                      | 64   |
| 1914-----                   | 69                            | 63                                      | 78                               | 83   | 62  | 80                                      | 67   |
| 1915-----                   | 71                            | 64                                      | 80                               | 86   | 68  | 82                                      | 66   |
| 1916-----                   | 72                            | 63                                      | 78                               | 87   | 60  | 79                                      | 67   |
| 1917-----                   | 75                            | 68                                      | 81                               | 89   | 68  | 82                                      | 68   |
| 1918-----                   | 74                            | 67                                      | 82                               | 90   | 65  | 86                                      | 66   |
| 1919-----                   | 73                            | 65                                      | 80                               | 88   | 65  | 84                                      | 64   |
| 1920-----                   | 73                            | 67                                      | 78                               | 86   | 71  | 84                                      | 66   |
| 1921-----                   | 76                            | 72                                      | 82                               | 87   | 71  | 84                                      | 71   |
| 1922-----                   | 78                            | 76                                      | 89                               | 89   | 72  | 84                                      | 74   |
| 1923-----                   | 78                            | 73                                      | 88                               | 88   | 73  | 82                                      | 73   |
| 1924-----                   | 75                            | 71                                      | 85                               | 85   | 65  | 75                                      | 71   |
| 1925-----                   | 76                            | 72                                      | 84                               | 83   | 73  | 78                                      | 74   |
| 1926-----                   | 77                            | 75                                      | 87                               | 83   | 72  | 79                                      | 76   |
| 1927-----                   | 79                            | 77                                      | 88                               | 84   | 75  | 79                                      | 76   |
| 1928-----                   | 80                            | 77                                      | 88                               | 85   | 75  | 80                                      | 77   |
| 1929-----                   | 79                            | 77                                      | 89                               | 88   | 74  | 75                                      | 78   |
| 1930-----                   | 82                            | 77                                      | 89                               | 89   | 69  | 74                                      | 80   |
| 1931-----                   | 82                            | 80                                      | 92                               | 92   | 78  | 81                                      | 81   |
| 1932-----                   | 84                            | 80                                      | 94                               | 97   | 83  | 83                                      | 82   |
| 1933-----                   | 82                            | 75                                      | 91                               | 98   | 71  | 74                                      | 75   |
| 1934-----                   | 76                            | 63                                      | 75                               | 87   | 54  | 72                                      | 72   |
| 1935-----                   | 78                            | 69                                      | 81                               | 89   | 68  | 73                                      | 77   |
| 1936-----                   | 79                            | 70                                      | 81                               | 88   | 66  | 73                                      | 76   |
| 1937-----                   | 82                            | 77                                      | 81                               | 87   | 74  | 82                                      | 79   |
| 1938-----                   | 85                            | 81                                      | 89                               | 91   | 78  | 81                                      | 85   |
| 1939-----                   | 89                            | 86                                      | 94                               | 95   | 82  | 86                                      | 87   |
| 1940-----                   | 92                            | 88                                      | 94                               | 97   | 87  | 92                                      | 92   |
| 1941-----                   | 101                           | 98                                      | 102                              | 104  | 97  | 103                                     | 102  |
| 1942-----                   | 108                           | 113                                     | 119                              | 114  | 118   | 113                                     | 111  |
| 1943-----                   | 108                           | 111                                     | 120                              | 117  | 116   | 113                                     | 105  |
| 1944-----                   | 105                           | 102                                     | 107                              | 111  | 106   | 112                                     | 104  |
| 1945-----                   | 103                           | 100                                     | 104                              | 106  | 109   | 108                                     | 101  |
| 1946-----                   | 101                           | 98                                      | 99                               | 103  | 101   | 103                                     | 100  |
| 1947-----                   | 98                            | 96                                      | 96                               | 99   | 92  | 96                                      | 97   |
| 1948-----                   | 99                            | 100                                     | 100                              | 99   | 101   | 100                                     | 103  |
| 1949-----                   | 104                           | 104                                     | 104                              | 102  | 107   | 103                                     | 107  |
| 1950-----                   | 109                           | 109                                     | 108                              | 106  | 110   | 109                                     | 112  |
| 1951-----                   | 110                           | 109                                     | 108                              | 110  | 113   | 112                                     | 112  |
| 1952-----                   | 113                           | 106                                     | 103                              | 112  | 103   | 109                                     | 114  |
| 1953-----                   | 115                           | 105                                     | 102                              | 113  | 106   | 111                                     | 117  |
| 1954-----                   | 119                           | 111                                     | 106                              | 115  | 106   | 113                                     | 120  |
| 1955-----                   | 120                           | 114                                     | 109                              | 117  | 112   | 114                                     | 122  |

<sup>1/</sup> Weighted by total feed consumed.<sup>2/</sup> Weighted by grain and other concentrates consumed.<sup>3/</sup> Weighted by the value of production, for the calendar year following October 1. See Changes in Farm Production and Efficiency, U. S. Agr. Res. Serv., ARS 43-55.

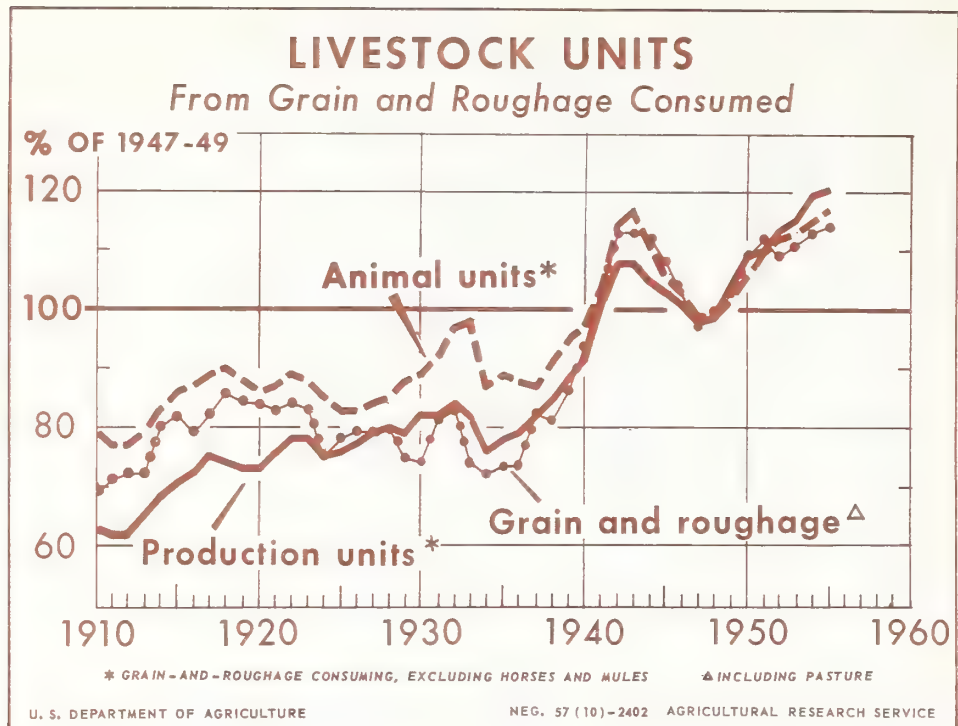


Figure 1

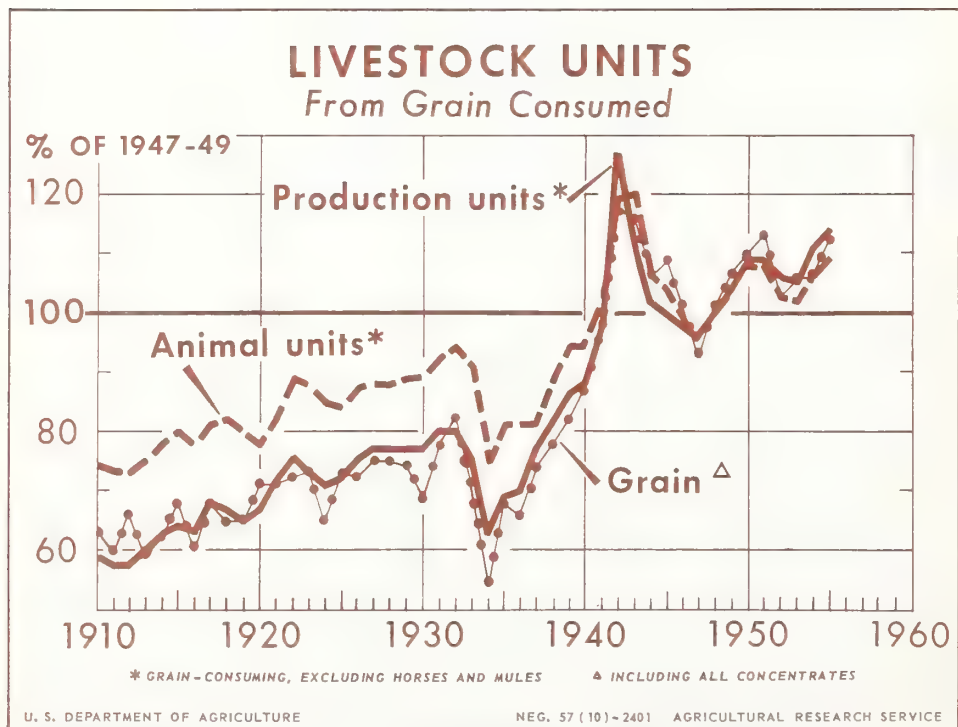


Figure 2



Table 7.- Concentrates fed per livestock-production unit, 1910-55

| Year<br>beginning<br>October 1 | Total<br>concentrates fed<br>1/ |                  | Production<br>units from<br>grain |      | Concen-<br>trates fed<br>per unit |  | Year<br>beginning<br>October 1 |  | Total<br>concentrates fed<br>1/ |                  | Production<br>units from<br>grain |      | Concen-<br>trates fed<br>per unit |  |
|--------------------------------|---------------------------------|------------------|-----------------------------------|------|-----------------------------------|--|--------------------------------|--|---------------------------------|------------------|-----------------------------------|------|-----------------------------------|--|
|                                | Million<br>tons                 | Million<br>units | Million<br>units                  | Tons |                                   |  |                                |  | Million<br>tons                 | Million<br>units | Million<br>units                  | Tons |                                   |  |
| 1910-----                      | 101.4                           | 117.8            | 117.8                             | 0.86 |                                   |  | 1933-----                      |  | 91.9                            | 135.5            | 135.5                             | 0.68 |                                   |  |
| 1911-----                      | 92.2                            | 116.4            | 116.4                             | .79  |                                   |  | 1934-----                      |  | 71.4                            | 117.3            | 117.3                             | .61  |                                   |  |
| 1912-----                      | 107.4                           | 117.4            | 117.4                             | .91  |                                   |  | 1935-----                      |  | 94.1                            | 125.6            | 125.6                             | .75  |                                   |  |
| 1913-----                      | 91.0                            | 120.2            | 120.2                             | .76  |                                   |  | 1936-----                      |  | 75.5                            | 127.0            | 127.0                             | .59  |                                   |  |
| 1914-----                      | 93.6                            | 126.3            | 126.3                             | .74  |                                   |  | 1937-----                      |  | 97.0                            | 136.9            | 136.9                             | .71  |                                   |  |
| 1915-----                      | 108.3                           | 127.1            | 127.1                             | .85  |                                   |  | 1938-----                      |  | 99.0                            | 142.2            | 142.2                             | .70  |                                   |  |
| 1916-----                      | 92.5                            | 125.8            | 125.8                             | .74  |                                   |  | 1939-----                      |  | 102.2                           | 149.9            | 149.9                             | .68  |                                   |  |
| 1917-----                      | 107.6                           | 133.7            | 133.7                             | .80  |                                   |  | 1940-----                      |  | 108.0                           | 151.5            | 151.5                             | .71  |                                   |  |
| 1918-----                      | 102.0                           | 132.1            | 132.1                             | .77  |                                   |  | 1941-----                      |  | 118.7                           | 167.2            | 167.2                             | .71  |                                   |  |
| 1919-----                      | 101.7                           | 129.0            | 129.0                             | .79  |                                   |  | 1942-----                      |  | 142.1                           | 211.8            | 211.8                             | .67  |                                   |  |
| 1920-----                      | 110.5                           | 131.5            | 131.5                             | .84  |                                   |  | 1943-----                      |  | 139.0                           | 185.7            | 185.7                             | .75  |                                   |  |
| 1921-----                      | 107.9                           | 140.2            | 140.2                             | .77  |                                   |  | 1944-----                      |  | 128.9                           | 171.2            | 171.2                             | .75  |                                   |  |
| 1922-----                      | 106.2                           | 145.3            | 145.3                             | .73  |                                   |  | 1945-----                      |  | 132.5                           | 166.7            | 166.7                             | .79  |                                   |  |
| 1923-----                      | 111.2                           | 140.9            | 140.9                             | .79  |                                   |  | 1946-----                      |  | 122.7                           | 163.2            | 163.2                             | .75  |                                   |  |
| 1924-----                      | 96.8                            | 136.0            | 136.0                             | .71  |                                   |  | 1947-----                      |  | 110.6                           | 159.1            | 159.1                             | .70  |                                   |  |
| 1925-----                      | 106.9                           | 137.2            | 137.2                             | .78  |                                   |  | 1948-----                      |  | 120.1                           | 163.7            | 163.7                             | .73  |                                   |  |
| 1926-----                      | 103.4                           | 140.4            | 140.4                             | .74  |                                   |  | 1949-----                      |  | 126.4                           | 170.1            | 170.1                             | .74  |                                   |  |
| 1927-----                      | 107.7                           | 142.9            | 142.9                             | .75  |                                   |  | 1950-----                      |  | 130.3                           | 176.4            | 176.4                             | .74  |                                   |  |
| 1928-----                      | 107.2                           | 142.8            | 142.8                             | .75  |                                   |  | 1951-----                      |  | 132.3                           | 174.6            | 174.6                             | .76  |                                   |  |
| 1929-----                      | 104.9                           | 141.0            | 141.0                             | .74  |                                   |  | 1952-----                      |  | 121.9                           | 169.7            | 169.7                             | .72  |                                   |  |
| 1930-----                      | 95.6                            | 141.2            | 141.2                             | .68  |                                   |  | 1953-----                      |  | 125.8                           | 167.8            | 167.8                             | .75  |                                   |  |
| 1931-----                      | 103.7                           | 144.2            | 144.2                             | .72  |                                   |  | 1954-----                      |  | 126.4                           | 176.3            | 176.3                             | .72  |                                   |  |
| 1932-----                      | 111.1                           | 144.9            | 144.9                             | .77  |                                   |  | 1955-----                      |  | 131.7                           | 180.8            | 180.8                             | .73  |                                   |  |
|                                |                                 |                  |                                   |      |                                   |  |                                |  |                                 |                  |                                   |      |                                   |  |

1/ Includes corn in silage and skim milk fed as a liquid as reported in Grain and Feed Statistics, by the Agricultural Marketing Service, U. S. Dept. Agr. Statis. Bul. 159, 97 pp., 1957.

Table 8. - All feed consumed per livestock-production unit, excluding horses and mules 1/

| Year beginning<br>October 1 | Production<br>units | All feed<br>consumed | Feed per production unit |                             |
|-----------------------------|---------------------|----------------------|--------------------------|-----------------------------|
|                             |                     |                      | Quantity                 | Index no.<br>:(1947-49=100) |
|                             | Million<br>units    | Million<br>tons      | Tons                     |                             |
| 1910-----                   | 60.5                | 173.7                | 2.87                     | 110                         |
| 1911-----                   | 59.3                | 178.9                | 3.02                     | 115                         |
| 1912-----                   | 59.9                | 182.4                | 3.04                     | 116                         |
| 1913-----                   | 62.3                | 181.1                | 2.91                     | 111                         |
| 1914-----                   | 66.2                | 201.0                | 3.04                     | 116                         |
| 1915-----                   | 67.7                | 206.1                | 3.05                     | 115                         |
| 1916-----                   | 68.7                | 197.9                | 2.88                     | 110                         |
| 1917-----                   | 72.2                | 207.2                | 2.87                     | 109                         |
| 1918-----                   | 71.1                | 215.8                | 3.04                     | 116                         |
| 1919-----                   | 69.5                | 211.4                | 3.04                     | 115                         |
| 1920-----                   | 70.3                | 211.3                | 3.01                     | 115                         |
| 1921-----                   | 73.2                | 210.4                | 2.87                     | 111                         |
| 1922-----                   | 75.0                | 211.0                | 2.81                     | 108                         |
| 1923-----                   | 74.6                | 207.5                | 2.78                     | 105                         |
| 1924-----                   | 72.1                | 190.0                | 2.64                     | 100                         |
| 1925-----                   | 73.0                | 197.4                | 2.70                     | 103                         |
| 1926-----                   | 74.0                | 198.1                | 2.68                     | 103                         |
| 1927-----                   | 75.4                | 198.8                | 2.64                     | 100                         |
| 1928-----                   | 76.4                | 200.6                | 2.63                     | 100                         |
| 1929-----                   | 75.6                | 188.2                | 2.49                     | 95                          |
| 1930-----                   | 78.2                | 186.2                | 2.38                     | 90                          |
| 1931-----                   | 78.5                | 203.4                | 2.59                     | 99                          |
| 1932-----                   | 80.4                | 207.9                | 2.59                     | 99                          |
| 1933-----                   | 78.7                | 185.9                | 2.36                     | 90                          |
| 1934-----                   | 72.6                | 182.2                | 2.51                     | 95                          |
| 1935-----                   | 75.1                | 183.5                | 2.44                     | 94                          |
| 1936-----                   | 75.5                | 183.0                | 2.42                     | 92                          |
| 1937-----                   | 78.8                | 205.5                | 2.61                     | 100                         |
| 1938-----                   | 81.9                | 204.2                | 2.49                     | 95                          |
| 1939-----                   | 85.6                | 217.0                | 2.54                     | 97                          |
| 1940-----                   | 88.6                | 232.7                | 2.63                     | 100                         |
| 1941-----                   | 96.4                | 258.4                | 2.68                     | 102                         |
| 1942-----                   | 103.9               | 284.0                | 2.73                     | 105                         |
| 1943-----                   | 103.6               | 285.4                | 2.75                     | 105                         |
| 1944-----                   | 100.9               | 281.1                | 2.78                     | 107                         |
| 1945-----                   | 98.3                | 270.9                | 2.76                     | 105                         |
| 1946-----                   | 97.0                | 260.5                | 2.69                     | 102                         |
| 1947-----                   | 93.5                | 242.9                | 2.60                     | 98                          |
| 1948-----                   | 94.6                | 252.1                | 2.66                     | 101                         |
| 1949-----                   | 99.4                | 260.2                | 2.62                     | 99                          |
| 1950-----                   | 104.6               | 274.5                | 2.62                     | 100                         |
| 1951-----                   | 105.5               | 282.3                | 2.67                     | 102                         |
| 1952-----                   | 108.5               | 274.9                | 2.53                     | 96                          |
| 1953-----                   | 110.6               | 278.6                | 2.52                     | 96                          |
| 1954-----                   | 113.7               | 284.1                | 2.50                     | 95                          |
| 1955-----                   | 115.3               | 287.5                | 2.49                     | 95                          |

1/ Livestock-production units in this table are computed by weighting production by all feed consumed, including pastures.





